

1. Claims 11, 12, 25, 27 and 28 stand rejected under 35 USC §103 as being unpatentable over USPN 4,495,421 to Endo et al. in view of USPN 5,627,925 to Alferness et al.;

2. Claims 13 and 30 stand rejected under 35 USC §103 as being unpatentable over Endo et al. in view of USPN 5,907,420 to Chraplyvy et al.;

3. Claims 19 and 39 stand rejected under 35 USC §103 as being unpatentable over Endo et al. in view of USPN 6,433,904 to Swanson et al.;

4. Claims 20 and 40 stand rejected under 35 USC §103 as being unpatentable over Endo et al. in view of USPN 5,033,112 to Bowling et al.;

5. Claims 11, 12, 25, 27 and 28 stand rejected under 35 USC §103 as being unpatentable over USPN 6,038,357 to Pan in view of USPN 5,612,805 to Fevrier et al.;

6. Claims 13 and 30 stand rejected under 35 USC §103 as being unpatentable over Pan in view of USPN 6,034,799 to Hansen;

7. Claims 19 and 39 stand rejected under 35 USC §103 as being unpatentable over Pan in view of Swanson et al.;

8. Claims 20 and 40 stand rejected under 35 USC §103 as being unpatentable over Pan in view of USPN 6,075,628 to Fisher et al.;

9. Claims 44, 48, 49, 52, 53 and 56-61 stand rejected under 35 USC §103 as being unpatentable over USPN 6,271,766 to Didden et al.

10. Claims 45-47 stand rejected under 35 USC §103 as being unpatentable over Didden et al. in view of USPN 6,115,156 to Otani et al.;

11. Claims 50 and 51 stand rejected under 35 USC §103 as being unpatentable over Didden et al. in view of USPN 4,182,935 to Chown; and

12. Claims 54 and 55 stand rejected under 35 USC §103 as being unpatentable over Didden et al. in view of USPN 4,346,478 to Sichling.

The present invention makes significant advancements in the art of providing electrical power to well tools positioned in wells. One example of these advancements is that the invention permits electrical power to be provided to selected ones of multiple well tools, rather than requiring that all of the well tools be provided with power simultaneously. This advantage is made possible by using a fiber optic line to transmit selected wavelengths of light to provide power to corresponding selected ones of the well tools. The light is converted to electrical power, using photoelectric converters associated with the well tools, according to the embodiment of the invention depicted in FIG. 2 of the application.

As the examiner acknowledges in the Office Action, the invention defined in the claims is not disclosed in any of the prior art references cited in the application. Thus, the examiner has had to search for combinations of references, and pick and choose from the elements and steps described in these combinations of references, in an attempt to cobble together the limitations recited in the claims.

This is the infamous use of the Applicant's disclosure against him, where the examiner uses the claims as a blueprint to find references which disclose individual pieces of the invention, and then alleges that it would be obvious to combine these individual pieces to produce the invention. Time and time again the Board of Appeals, the Federal Circuit and the Supreme Court have disapproved of this technique used by the examiner.

This is the **THIRD** nonfinal Office Action in this application. Yet again, the examiner is unsuccessful in showing that the claimed invention is obvious over the prior art. Perhaps only an appeal will result in an evaluation of the true merits of the invention, but the Applicant will attempt one more time to respond to the rejections, which amount to no more than a use of the claims as a recipe.

At the outset, all of the claim rejections are traversed on the basis that the examiner has not made out a prima facie case of obviousness. There is no motivation to combine the references as suggested by the examiner. A person skilled in the art would

not be lead to produce the claimed invention based on a reading of the references. Furthermore, the examiner has improperly combined the references.

Now, the Applicant will devote the remainder of this Response to addressing the rejections separately.

**The rejections of Claims 11, 12, 25, 27 and 28 as being unpatentable over  
Endo et al. in view of Alferness et al.**

Endo does describe wavelength division multiplexing being used to select and provide power to multiple devices in an automobile. However, Endo is not properly combinable with the Alferness reference as applied by the examiner.

Specifically, Alferness describes a fiber optic communication network in which the various wavelengths are transmitted continuously, not selectively. This teaches away from Endo's selective wavelength transmission to select and provide power to certain devices in an automobile.

Alferness relies on continuous simultaneous (not selective) transmission of various wavelengths. A person skilled in the art would definitely not be motivated to combine these references as alleged by the examiner.

Alferness teaches away from its combination with Endo. If Alferness were to be combined with Endo, it would make the Endo apparatus unsuited for its intended purpose. The references are improperly combined by the examiner, and the examiner has not made out a prima facie case of obviousness of Claims 11, 12, 25, 27 or 28.

**The rejections of Claims 13 and 30 as being unpatentable over Endo et al. in  
view of Chraplyvy et al.**

Endo does describe wavelength division multiplexing being used to select and provide power to multiple devices in an automobile. However, Endo is not properly combinable with the Chraplyvy reference as applied by the examiner.

Specifically, Chraplyvy describes the continuous transmission of a predetermined level of optical power. Interruptions of this optical power transmission are described as being very undesirable. The Chraplyvy invention is "... a technique for maintaining constant input power to all of the amplifiers in a link ..." (col. 3, ll. 37, 38, emphasis added). Therefore, a person skilled in the art would definitely not be motivated to combine Endo with Chraplyvy to produce the invention claimed in Claims 13 and 30.

Chraplyvy teaches away from its combination with Endo. If Chraplyvy were to be combined with Endo, it would make Endo's apparatus unsuited for its intended purpose. The references are improperly combined by the examiner, and the examiner has not made out a prima facie case of obviousness of Claims 13 or 30.

**The rejections of Claims 19 and 39 as being unpatentable over Endo et al. in view of Swanson et al.**

Endo does describe wavelength division multiplexing being used to select and provide power to multiple devices in an automobile. However, Endo is not properly combinable with the Swanson reference as applied by the examiner.

Specifically, Swanson describes a fiber optic communication network in which the various wavelengths are transmitted continuously, not selectively. The Swanson invention is the use of forward error correction codes in a wavelength division multiplexed communication network, and has no real relation to supplying electrical power to selected ones of multiple power consuming devices.

Swanson, thus, teaches away from the claimed invention, and away from its combination with Endo. If Swanson were to be combined with Endo, it would make Endo's apparatus unsuited for its intended purpose. The references are improperly combined by the examiner, and the examiner has not made out a prima facie case of obviousness of Claims 19 and 39.

**The rejections of Claims 20 and 40 as being unpatentable over Endo et al. in view of Bowling et al.**

Endo does describe wavelength division multiplexing being used to select and provide power to multiple devices in an automobile. However, Endo is not properly combinable with the Bowling reference as applied by the examiner.

Specifically, Bowling is used by the examiner to show that the devices can have preprogrammed functions. However, the devices described by Bowling are not supplied with electrical power in response to transmission of selected light wavelengths as required by the claims. Instead, Bowling's devices are continuously powered. A person skilled in the art would definitely not be motivated to combine Bowling with Endo to produce the claimed invention.

Thus, Bowling teaches directly away from the claimed invention, and teaches away from its combination with Endo. If Bowling were to be combined with Endo, it would make Endo's apparatus unsuited for its intended purpose. The examiner has improperly combined the references, and has not made out a prima facie case of obviousness of Claims 20 and 40.

**The rejections of Claims 11, 12, 25, 27 and 28 as being unpatentable over Pan in view of Fevrier et al.**

Pan also describes a fiber optic communication network, and not a method of selectively supplying electrical power as recited in the claims. This communication network does include electronic units which receive electrical power when corresponding photodiodes receive light from a demultiplexer. However, this is not the claimed invention, as acknowledged by the examiner.

Fevrier does not disclose an optical coupler receiving separate optical wavelength bands from multiple tunable filters as alleged by the examiner. Instead, the wavelengths output by the tunable filters are intercepted by receiver/emitters which transmit their own wavelengths. Therefore, a person skilled in the art would not be motivated to

combine Fevrier with Pan to produce the claimed invention, in part because such a combination would not produce the claimed invention.

The examiner has improperly combined the references, and has not made out a prima facie case of obviousness of Claims 11, 12, 25, 27 or 28.

**The rejections of Claims 13 and 30 as being unpatentable over Pan in view of Hansen**

Pan describes a fiber optic communication network, and not a method of selectively supplying electrical power as recited in the claims. This communication network does include electronic units which receive electrical power when corresponding photodiodes receive light from a demultiplexer. However, this is not the claimed invention, as acknowledged by the examiner.

Hansen does not disclose an optical coupler receiving separate optical wavelength bands from tunable lasers to transmit the multiple wavelength bands through an optical fiber as alleged by the examiner. Instead, the element identified by the examiner as an optical coupler is actually a router which operates to separate wavelength channels.

Thus, the examiner has not properly combined the references, and a person skilled in the art would not be motivated to combine the references as suggested by the examiner to produce the claimed invention. The examiner has failed to make out a prima facie case of obviousness of Claims 13 and 30.

**The rejections of Claims 19 and 39 as being unpatentable over Pan in view of Swanson et al.**

Pan describes a fiber optic communication network, and not a method of selectively supplying electrical power as recited in the claims. This communication network does include electronic units which receive electrical power when corresponding photodiodes receive light from a demultiplexer. However, this is not the claimed invention, as acknowledged by the examiner.

Swanson is not properly combined with Pan, since Swanson teaches directly away from its combination with Pan. Specifically, Swanson teaches that the polarization multiplexing used by Pan is undesirable. This teaching away is found in the Background section and in col. 6, ll. 33-35 of Pan.

Furthermore, as discussed above, Swanson describes a fiber optic communication network in which the various wavelengths are transmitted continuously, not selectively. The Swanson invention is the use of forward error correction codes in a wavelength division multiplexed communication network, and has no real relation to supplying electrical power to selected ones of multiple power consuming devices.

Thus, Swanson teaches away from its combination with Pan, and a person skilled in the art would not be motivated to combine Pan with Swanson to produce the claimed invention. The references are improperly combined, and the examiner has not made out a prima facie case of obviousness.

**The rejections of Claims 20 and 40 as being unpatentable over Pan in view of Fisher et al.**

Pan describes a fiber optic communication network, and not a method of selectively supplying electrical power as recited in the claims. This communication network does include electronic units which receive electrical power when corresponding photodiodes receive light from a demultiplexer. However, this is not the claimed invention, as acknowledged by the examiner.

Fisher describes a time domain multiplexing system which teaches directly away from the wavelength division multiplexing system of Pan. The Fisher disclosure relates to a communication system wherein interruptions in transmissions are due to undesirable faults in an optical path. A person skilled in the art would not be motivated to modify Pan using the teachings of Fisher.

Thus, Fisher is not properly combinable with Pan to produce the claimed invention. Fisher teaches away from Pan. The examiner has not made out a prima facie case of obviousness of Claims 20 and 40.

**The rejections of Claims 44, 48, 49, 52, 53 and 56-61 as being unpatentable over Didden et al.**

The examiner uses Didden alone and in combination with other references in obviousness rejections of Claims 44-61. However, Didden does not describe any electrical power distribution via selective wavelength transmission as recited in independent Claim 44.

Instead, Didden describes selective illumination of Bragg grating-type sensors. Alternatively, Didden describes the selective conversion of the sensor outputs to electrical signals, but this is not accomplished by selective wavelength transmission to the sensors, and selective wavelength transmission is not used to provide electrical power to selected ones of the sensors.

Therefore, Didden does not render any of Claims 44-61 obvious, either when taken alone or in combination with any of the other references. Quite the contrary, Didden actually teaches away from the claimed invention.

Thus, the examiner has not made out a prima facie case of obviousness of Claims 44, 48, 49, 52, 53 or 56-61.

**The rejections of Claims 45-47 as being unpatentable over Didden et al. in view of Otani et al.**

Didden describes selective illumination of Bragg grating-type sensors. Alternatively, Didden describes the selective conversion of the sensor outputs to electrical signals, but this is not accomplished by selective wavelength transmission to the sensors, and selective wavelength transmission is not used to provide electrical power to selected ones of the sensors. Didden teaches away from the claimed invention.

Thus, Didden cannot be properly combined with Otani to produce the claimed invention. Furthermore, the combination of Didden and Otani would not produce the



claimed invention. The examiner has not made out a prima facie case of obviousness of any of Claims 45-47.

**The rejections of Claims 50 and 51 as being unpatentable over Didden et al.  
in view of Chown**

Didden describes selective illumination of Bragg grating-type sensors. Alternatively, Didden describes the selective conversion of the sensor outputs to electrical signals, but this is not accomplished by selective wavelength transmission to the sensors, and selective wavelength transmission is not used to provide electrical power to selected ones of the sensors. Didden teaches away from the claimed invention.

Thus, Didden cannot be properly combined with Chown to produce the claimed invention. Furthermore, the combination of Didden and Otani would not produce the claimed invention. The examiner has not made out a prima facie case of obviousness of Claims 50 or 51.

**The rejections of Claims 54 and 55 as being unpatentable over Didden et al.  
in view of Sichling**

Didden describes selective illumination of Bragg grating-type sensors. Alternatively, Didden describes the selective conversion of the sensor outputs to electrical signals, but this is not accomplished by selective wavelength transmission to the sensors, and selective wavelength transmission is not used to provide electrical power to selected ones of the sensors. Didden teaches away from the claimed invention.

Thus, Didden cannot be properly combined with Sichling to produce the claimed invention. Furthermore, the combination of Didden and Otani would not produce the claimed invention. The examiner has not made out a prima facie case of obviousness of Claims 54 or 55.

In view of the foregoing amendment and remarks, all of the claims now pending in this application are now seen to be in a condition for allowance. A Notice of Allowance of Claims 11-13, 19, 20, 25, 27, 28, 30, 39, 40 and 44-61 is therefore earnestly solicited.

The examiner is hereby requested to telephone the undersigned attorney of record at (972) 516-0030 if such would further or expedite the prosecution of the instant application.

Respectfully submitted,

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